



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,389	09/26/2003	Mukunda V. Prema	81044477/202-0535	2388
28395	7590	07/11/2005	EXAMINER	
BROOKS KUSHMAN P.C./FGTL 1000 TOWN CENTER 22ND FLOOR SOUTHFIELD, MI 48075-1238			DOLE, TIMOTHY J	
			ART UNIT	PAPER NUMBER
			2858	

DATE MAILED: 07/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/605,389	PREMA ET AL.	
	Examiner	Art Unit	
	Timothy J. Dole	2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,10,11,13,14 and 18 is/are rejected.
- 7) ☒ Claim(s) 3-9,12,15-17,19 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 10, 11, 13 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Marritt et al. (US 5,847,566).

Referring to claims 1 and 18, Marritt et al. discloses in an electric vehicle having an energy storage device, an indicator system and method comprising: a processing source (fig. 1 (7)) to calculate a normalized amount of power available from the energy storage device (column 38, lines 8-26), the normalized amount being calculated as a function of desired limits on operator use of power actually available from the energy source (column 45, lines 35-44), and an indicator (fig. 1 (9)) to indicate the normalized amount of power available from the energy storage device (column 38, lines 27-33).

Referring to claim 2, Marritt et al. discloses the system as claimed wherein the energy source is a battery (fig. 1 (11)) which provides power for use in providing electric assist and the processing source calculates the normalized amount of power available from the battery as a normalized battery state of charge (SOC) such that the indicator indicates the normalized SOC (column 12, lines 39-54 and column 38, lines 8-33).

Referring to claim 10, Marritt et al. discloses the system as claimed wherein the normalized amount of power available from the energy storage device is a range selected from the group comprising below-normal battery charge, normal battery charge, and above-normal battery charge (fig. 4 and column 38, lines 27-33).

Referring to claim 11, Marritt et al. discloses the system as claimed wherein the range is based on a normalized battery state of charge (SOC) (column 12, lines 39-54).

Referring to claim 13, Marritt et al. discloses the system as claimed wherein the indicator includes a percentage display for indicating the normalized amount of power available from the energy storage device (column 38, lines 27-33).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marritt et al. in view of Baer et al. (US 5,701,068).

Referring to claim 14, Marritt et al. discloses the system as claimed except wherein the energy source is a battery (fig. 1 (11)), which provides power for use in providing electric assist.

Marritt et al. does not disclose the indicator includes an illuminable light that is illuminated based on the normalized amount of power available from the battery, wherein

Art Unit: 2858

electric assist is unavailable if the light is illuminated and electric assist is available if the light is unilluminated.

Baer et al. discloses a battery management system wherein the energy source is a battery (fig. 1 (50)) which provides power for use in providing electric assist and the indicator (fig. 1 (140)) includes an illuminable light that is illuminated based on the normalized amount of power available from the battery, wherein electric assist is unavailable if the light is illuminated and electric assist is available if the light is unilluminated (column 14, lines 53-61).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the indicator of Baer et al. into the system of Marritt et al. for the purpose of providing better indication to the operator that the system is not charging (column 14, lines 53-61).

Allowable Subject Matter

5. Claims 3-9, 12, 15-17, 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments filed March 26, 2005 have been fully considered but they are not persuasive.

Art Unit: 2858

7. In response to Applicants argument with respect to claims 1 and 18, that "The Merritt patent does not disclose the normalized value being determined as a function of the desired limits on operator use of power actually available from an energy source" (page 6, last paragraph, lines 3-6), it should be noted that Marritt et al. discloses the claimed limitations as shown in the above rejection. The equation of Marritt et al. shows the normalized remaining capacity being calculated using a function of the parameter, S (column 45, lines 35-44), which is an indication of the state of charge of the battery (column 13, lines 8-9). When $S=0$ there is no power available from the power source, therefore since the fuel gauge normalized remaining capacity is calculated as a function of S, and S shows a desired limit on operator use of power actually available from the energy source, Marritt et al. discloses the claimed limitations of claims 1 and 18.

Final Rejection

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2858

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

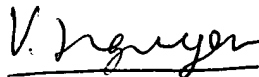
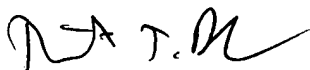
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Dole whose telephone number is (571) 272-2229. The examiner can normally be reached on Mon. thru Fri. from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TJD



7/05/2005

VINCENT Q. NGUYEN
PRIMARY EXAMINER